

Patent Claims

1. Method for the preparation of an embossed foil from a mass containing non-interlaced polyolefins and possibly additional additives, whereby the obtained foil is treated with electron beams, characterized in that the foil obtained in the traditional manner for achieving grain stability suitable for deep drawing is treated with electron beams and the grained foil is deep drawn with a density of approximately 0.7 to 1.2 g/cm<sup>3</sup>.

2. Method according to Claim 1, characterized in that by way of non-interlaced polyolefins are employed polypropylen, polyethylene, polypropylene-co-polymers or terpolymers with C<sub>2</sub>, C<sub>4</sub>-C<sub>12</sub>- $\alpha$ -olefins and/or polyethylene-co-polymers or terpolymers with C<sub>3</sub> to C<sub>12</sub>- $\alpha$ -olefins.

3. Method according to at least one of Claims 1 or 2, characterized in that an interlacing auxiliary is included in the mass.

4. Method according to Claim 3, characterized in that trimethylpropantriacylate is selected as interlacing auxiliary.

5. Method according to at least one of Claims 3 or 4, characterized in that trimethylolpropantriacylate is employed in a quantity of up to 20% by weight in proportion to the contents of the mass of non-interlaced polyolefins.

6. Method according to at least one of Claims 1 to 5, characterized in that a stabilizer is included in the mass.

7. Method according to Claim 6, characterized in that by way of stabilizers in the mass are employed phenol derivatives, lactones, phosphites and/or sterically inhibited amines in a quantity of up to approximately 5% by weight.

8. Method according to at least of the Claims 1-7, characterized in that the radiated foil has a thickness of approximately 0.2 to 2.0, in particular approximately 0.4 to 1.4 mm.

5 9. Method according to at least one of Claims 1 to 8, characterized in that the treatment with electron beams is effected at a beam dosis of approximately 10 to 500 kJ/m<sup>2</sup>.

10 10. Method according to at least one of Claims 1 to 9, characterized in that the treatment of the foil with electron beams is effected to such extent that a gel contents of approximately 5 to 80% appears in the radiated foil.

11. Method according to at least one of Claims 1 to 10, characterized in that the radiated foil is embossed.

12. Method according to at least one of Claims 1 to 11, characterized in that the radiated foil is laminated to form a composite structure.

15 13. Method according to at least one of Claims 1 to 12, characterized in that the radiated foil or the composite structure containing same is deep drawn to a shaped body.

20 14. Method according to Claim 13, characterized in that the deep drawn shaped body is utilized is interior lining of motor vehicles, in particular as dashboard foil.

15. Method according to at least one of Claims 1 to 10, characterized in that the foil obtained in the traditional manner is further processed according to an embossing and/or laminating process, prior to treatment with electron beams.